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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/274,194	03/22/1999	JOHN E. LANG	LAM2P266	8105

7590 06/14/2005

MARTINE & PENILLA, LLP  
710 Lakeway Drive  
Suite 170  
Sunnydale, CA 94085

EXAMINER
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SONG, MATTHEW J

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<p align="center"><b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b></p>	<p><b>Application No.</b> 09/274,194</p>	<p><b>Applicant(s)</b> LANG, JOHN E.</p>	
	<p><b>Examiner</b> Matthew J. Song</p>	<p><b>Art Unit</b> 1722</p>	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 20 May 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The reply was filed after the date of filing a Notice of Appeal, but prior to the date of filing an appeal brief. The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
- (a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ They raise the issue of new matter (see NOTE below);
- (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
- The status of the claim(s) is (or will be) as follows:
- Claim(s) allowed: \_\_\_\_\_.
- Claim(s) objected to: \_\_\_\_\_.
- Claim(s) rejected: 20-38.
- Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see continuation sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_
13. ☐ Other: \_\_\_\_\_.

  
**ROBERT KUNEMUND**  
**PRIMARY EXAMINER**

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**Continuation of 3. NOTE:** Claim 20 has been amended to further require forming an opening through an entire thickness of the photoresist layer. The new limitation would require further search and consideration

**Continuation of item 11:**

Applicant's argument that Chen's method is not a conventional method for removing photoresist from over a low dielectric constant layer without attacking same (pg 8) is noted but is not found persuasive. The Examiner agrees that Chen does not teach the use of ACT-690 for removing photoresist from over a low dielectric constant layer, as suggested by applicant. However, the Examiner maintains that Wojnarowski et al is not particular to the means of photoresist removal, which would suggest any means of photoresist removal would be applicable. Chen is not required to teach using ACT-690 without attacking the low dielectric photoresist because Chen is relied upon solely to teach a known method of photoresist removal.

Applicant's argument that Wojnarowski teaches that any means used to remove photoresist should be able to remove the photoresist from over the low dielectric constant layers as opposed to the SiO<sub>2</sub> layers is noted but is not found persuasive. Applicant has not shown where Wojnarowski teaches this feature and the Examiner has been unable to locate any teaching in Wojnarowski, which limits the method of photoresist removal, as suggested by applicant; therefore the argument is not deemed persuasive.

Applicant's argument that oxygen plasma and ACT-690 are not taught by the prior art to be equivalents is noted but is not found persuasive. Applicant's quote *In re Ruff*, which states components of a Markush cannot be relied upon to establish equivalency of components. Chen

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teaches a photoresist is stripped off **either** by using ACT-690 or by ashing with an oxygen-containing plasma (col 4, ln 25-35), which the Examiner views as a teaching that either method is equivalent in regards to photoresist removal. The teaching of Chen is not a Markush group, which includes O<sub>2</sub> and ACT-690, as suggest by applicant. A Markush group recites members as being "selected from the group consisting of A, B and C.", note MPEP 2173.05(h), which is clearly not the case for Chen.

Applicant's argument that there is no motivation is noted but is not found persuasive. An express suggestion to substitute one equivalent component or process for another is not necessary to render such substitution obvious (MPEP 2144.06).

Applicant's argument that has disregarded that Chen is only directed at dielectrics such as SiO<sub>2</sub> and not, low dielectric constant layers is noted but is not found persuasive. The Examiner has merely considered what would have been obvious to a person of ordinary skill in the art at the time of the invention and maintains that the use of a photoresist method regardless of the underlying layers would have been obvious. The primary references, Wojnarowski and Huang do not limit the means for photoresist removal and Chen teaches a method of photoresist removal, which would have been obvious to a person of ordinary skill in the art for the reason stated previously.